

IN THE CLAIMS:

Please amend Claims 1 to 33 and add Claims 34 to 66 as follows. All claims currently pending in this application, including those presently being amended, are reproduced below.

1. (Currently Amended) In an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory and defines an event, comprising:

a parameter indicating a type of event to be captured by the computer,  
wherein the event element tag represents a function to detect the indicated type of event and to process at least one element associated with the event element tag in response to the detected type of event. ~~An XML-based event marker comprising an event parameter indicating an event, wherein the marker represents a function to detect the indicated event.~~

2. (Currently Amended) An event element tag ~~XML-based event marker~~ according to Claim 1, wherein the detected event is a user event.

3. (Currently Amended) An event element tag ~~XML-based event marker~~ according to Claim 1, wherein the detected event is a system event.

4. (Currently Amended) An event element tag ~~XML-based event~~ ~~marker~~ according to Claim 1, further comprising a coordinate parameter indicating a position at which the event occurs.

5. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory and defines an action, comprising: ~~An XML-based action marker,~~ comprising:

an object parameter indicating a media object element;

an attribute parameter indicating an attribute of the indicated media object element; and

a value parameter indicating a value of the attribute,

wherein the action element tag ~~marker~~ represents a function to assign the value to the attribute of the indicated media object element.

6. (Currently Amended) An action element tag ~~XML-based action~~ ~~marker~~ according to Claim 5, further comprising a begin parameter indicating a time delay to wait prior to assigning the value to the attribute of the media object.

7. (Currently Amended) An action element tag ~~XML-based action~~ ~~marker~~ according to Claim 5, further comprising an order-number parameter indicating a

position in a sequence of actions at which the value is to be assigned to the attribute of the media object.

8. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory and defines an interpolation, comprising: ~~An XML-based interpolate marker, comprising:~~

an object parameter indicating a media object element;

an attribute parameter indicating an attribute of the indicated media object element;

a begin parameter indicating a first time;

an end parameter indicating a second time; and

an end value parameter indicating a value of the attribute,

wherein the interpolate element tag ~~marker~~ represents a function to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time.

9. (Currently Amended) In an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory and defines a condition, comprising: ~~An XML-based condition marker comprising:~~

an element Id parameter indicating an element;

an attribute parameter indicating an attribute of the indicated element; and  
a value parameter indicating a value of the attribute,  
wherein the condition element tag marker represents a function to detect  
whether or not the attribute of the indicated element possesses the value.

10. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, a set of element tags, which are readable by the computer from a memory and define an event and an action, comprising: A set of XML-based markers comprising:

an event element tag comprising a parameter indicating a type of event to be captured by the computer; marker indicating an event; and

an action element tag marker indicating a media object element, an attribute of the indicated media object element, and a value of the attribute,

wherein the event and action element tags markers represent a function to assign the value to the attribute if the event is detected.

11. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 10, 9, wherein the event element tag marker indicates a user event.

12. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 10, 9, wherein the event element tag marker indicates a system event.

13. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 10, 9; the action element tag marker indicating a time delay to wait, after detection of the event, before assigning the value to the attribute of the media object.

14. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 10, 9; the action element tag marker indicating a position in a sequence of actions at which the value is to be assigned to the attribute of the media object.

15. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 10, 9; further comprising a second action element tag marker indicating a second media object, an attribute of the second media object, and a second value of the attribute,

wherein the element tags ~~markers~~ represent a function to assign the second value to the attribute of the second media object if the event is detected.

16. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, a set of element tags, which are readable by the computer from a memory and define an event, a condition and an action, comprising: A set of XML-based markers comprising:

an event element tag comprising a parameter indicating a type of event to be captured by the computer; ~~marker indicating an event;~~

a condition element tag marker indicating a state of a first media object element; and

an action element tag marker indicating a second media object element, an attribute of the indicated second media object element, and a value of the attribute,

wherein the event, condition and action element tags markers represent a function to assign the value to the attribute of the indicated second media object element if the event is detected and if the indicated first media object element possesses the indicated state.

17. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 16, wherein the event element tag marker indicates a user event.

18. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 16, wherein the event element tag marker indicates a system event.

19. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 16, wherein, in a case that the event is NULL, the element tags markers represent a function to assign the value to the attribute of the second media object if the first media object possesses the indicated state.

20. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 16, further comprising a second condition element tag marker indicating a second state of a third media object,

wherein the element tags ~~markers~~ represent a function to assign the value to the attribute of the second media object if the event is detected, if the first media object possesses the indicated state, and if the third media object possesses the second indicated state.

21. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, a set of element tags, which are readable by the computer from a memory and define an event and an interpolation, comprising: A set of XML-based markers comprising:

an event element tag comprising a parameter indicating a type of event to be captured by the computer; ~~marker indicating an event, and~~

an interpolate element tag ~~marker~~ indicating a media object element, an attribute of the indicated media object element, a first time, a second time, and a value of the attribute,

wherein the event and interpolate element tags ~~markers~~ represent a function to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the event is detected.

22. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 21, wherein the event element tag ~~marker~~ indicates a user event.

23. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 21, wherein the event element tag marker indicates a system event.

24. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, a set of element tags, which are readable by the computer from a memory and define an event, a condition and an interpolation, comprising: A set of XML-based markers comprising:

an event element tag comprising a parameter indicating a type of event to be captured by the computer; ~~marker indicating an event;~~

a condition element tag marker indicating a state of a first media object element; and

an interpolate element tag marker indicating a second media object element, an attribute of the indicated second media object element, a first time, a second time, and a value of the attribute,

wherein the event, condition and interpolate element tags ~~markers~~ represent a function to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the event is detected and if the indicated first media object element possesses the indicated state.

25. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 24, wherein the event element tag marker indicates a user event.



26. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 24, wherein the event element tag ~~marker~~ indicates a system event.

27. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 24, wherein, in a case that the event is NULL, the element tags ~~markers~~ represent a function to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the first media object possesses the indicated state.

28. (Currently Amended) A set of element tags ~~XML-based markers~~ according to Claim 24, further comprising a second condition element tag ~~marker~~ indicating a second state of a third media object,

wherein the element tags ~~markers~~ represent a function to assign the value to the attribute of the second media object if the event is detected, if the first media object possesses the indicated state, and if the third media object possesses the second indicated state.

29. (Currently Amended) In an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory, comprising:  
~~An XML-based marker representing a media object element, the marker comprising:~~  
a test-element attribute for indicating a particular media object element;

a test-attribute attribute for indicating an attribute of the particular media object element; and

a test-value attribute for indicating a test value to compare with a value of the indicated attribute,

wherein the element tag represents a function to compare a value associated with the indicated attribute of the indicated media object element with the test value.

30. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, an element tag, which is readable by the computer from a memory, comprising: An XML-based marker indicating that child elements are to be executed in parallel, the marker comprising:

a test-element attribute for indicating a particular media object element;

a test-attribute attribute for indicating an attribute of the particular media object element; and

a test-value attribute for indicating a test value to compare with a value of the indicated attribute,

wherein the element tag represents a function to execute in parallel child elements associated with the element tag based on an outcome of a comparison of a value associated with the indicated attribute of the indicated media object element with the test value.

31. (Currently Amended) An element tag ~~XML-based marker~~ according to Claim 30, wherein the child elements are executed in parallel in a case that the value of the indicated attribute of the particular element is equal to the test value.

32. (Currently Amended) In an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, an element tag which is readable by the computer from a memory, comprising: ~~An XML-based marker indicating that child elements are to be executed sequentially, the marker comprising:~~

a test-element attribute for indicating a particular media object element;

a test-attribute attribute for indicating an attribute of the particular media object element; and

a test-value attribute for indicating a test value to compare with a value of the specified attribute,

wherein the element tag represents a function to execute in sequence child elements associated with the element tag based on an outcome of a comparison of a value associated with the indicated attribute of the indicated media object element with the test value.

33. (Currently Amended) An element tag ~~XML-based marker~~ according to Claim 32, wherein the child elements are executed sequentially in a case that the value of the indicated attribute of the particular element is equal to the test value.

34. (New) A computer-readable medium storing computer executable process steps to process a tag representing an event element of an extensible-markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, the event element tag is readable by a computer and represents a function to detect an indicated type of event, the process steps comprising:

an interpreting step to interpret a parameter indicating a type of event to be captured by the computer;

a detecting step to detect an occurrence of the indicated type of event; and

a processing step to process at least one element associated with the event element tag in response to the detected type of event.

35. (New) A computer-readable medium according to Claim 34, wherein the detected event is a user event.

36. (New) A computer-readable medium according to Claim 34, wherein the detected event is a system event.

37. (New) A computer-readable medium according to Claim 34, wherein the event element tag further comprises a coordinate parameter indicating a position at which the event occurs.

38. (New) A computer-readable medium according to Claim 34, the process steps further comprising:

an interpreting step to interpret an action element tag indicating a media object, an attribute of an element tag representing the media object, and a value of the attribute; and

an assigning step to assign the value to the attribute if the event is detected.

39. (New) A computer-readable medium according to Claim 38, the process steps further comprising:

an interpreting step to interpret a second action element tag indicating a second media object, an attribute of the second media object, and a second value of the attribute; and

an assigning step to assign the second value of the attribute of the second media object if the event is detected.

40. (New) A computer-readable medium according to Claim 34, the process steps further comprising:

an interpreting step to interpret a condition element tag indicating a state of a first media object;

an interpreting step to interpret an action element tag indicating a second media object, an attribute of the second media object, and a value of the attribute; and

an assigning step to assign the value to the attribute of the second media object if the event is detected and if the first media object possesses the indicated state.

41. (New) A computer-readable medium according to Claim 40, wherein the event element tag indicates a user event.

42. (New) A computer-readable medium according to Claim 40, wherein the event element tag indicates a system event.

43. (New) A computer-readable medium according to Claim 40, wherein a case that the event is NULL the assigning step further comprising assigning the value to the attribute of the second media object if the first media object possesses the indicated state.

44. (New) A computer-readable medium according to Claim 40, wherein a second condition element tag indicates a second state of a third media object, the process steps further comprising:

an assigning step to assign the value to the attribute of the second media object if the event is detected, if the first media object possesses the indicated state, and if the third media object possesses the second indicated state.

45. (New) A computer-readable medium according to Claim 34, the process steps further comprising:

an interpreting step to interpret an interpolate element tag indicating a media object, an attribute of the media object, a first time, a second time, and a value of the attribute; and

a changing step to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the event is detected.

46. (New) A computer-readable medium according to Claim 45, wherein the event element tag indicates a user event.

47. (New) A computer-readable medium according to Claim 45, wherein the event element tag indicates a system event.

48. (New) A computer-readable medium according to Claim 34, the process steps further comprising:

an interpreting step to interpret a condition element tag indicating a state of a first media object;

an interpreting step to interpret an interpolate element tag indicating a second media object, an attribute of the second media object, a first time, a second time, and a value of the attribute; and

a changing step to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the event is detected and if the first media object possesses the indicated state.

49. (New) A computer-readable medium according to Claim 48, wherein the event element tag indicates a user event.

50. (New) A computer-readable medium according to Claim 48, wherein the event element tag indicates a system event.

51. (New) A computer-readable medium according to Claim 48, wherein in a case that the event is NULL, the changing step further comprising gradually changing a value of the attribute to the end value over a period beginning at the first time and ending at the second time if the first media object possesses the indicated state.

52. (New) A computer-readable medium according to Claim 48, wherein a second condition element tag indicates a second state of a third media object, the process steps further comprising:

an assigning step to assign the value to the attribute of the second media object if the event is detected, if the first media object possesses the indicated state, and if the third media object possesses the second indicated state.

53. (New) A computer-readable medium storing computer executable process steps to process a tag representing an action element of an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, the action element tag representing a function to update a value of an attribute of an element, the process steps comprising:

an interpreting step to interpret object, attribute and value parameters of the action element tag, the object parameter indicating a media object, the attribute parameter



indicating an attribute of the media object and the value parameter indicating a value of the attribute; and

an assigning step to assign the value to the attribute of the media object.

54. (New) A computer-readable medium according to Claim 53, the assigning step further comprising:

a delaying step to delay assigning a value to the attribute of the media object for a time specified in a begin parameter of the action element tag, the begin parameter indicating a time delay to wait prior to assigning the value to the attribute of the media object.

55. (New) A computer-readable medium according to Claim 53, wherein the XML-based action element tag further comprises an order-number parameter indicating a position in a sequence of actions at which the value is to be assigned to the attribute of the media object.

56. (New) A computer-readable medium storing computer executable process steps to process a tag representing an interpolation element of an extensible markup language, which comprises elements including a media object element, used in developing and executing a multimedia presentation by a computer, the interpolate element tag representing a function to update an attribute value of the media object element to gradually change the attribute value to an end value over a period of time, the process steps comprising:

an interpreting step to interpret object, attribute, begin, end and end value parameters of the interpolate element tag, the object parameter indicating a media object, the attribute parameter indicating an attribute of the media object, the begin parameter indicating a first time, the end parameter indicating a second time, and the end value parameter indicating a value of the attribute; and

a changing step to gradually change a value of the attribute to the end value over a period beginning at the first time and ending at the second time.

57. (New) A computer-readable medium storing computer executable process steps to process a tag representing a condition element defined by an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, the condition element tag representing a function to detect existence of a condition of an attribute of an element, the process steps comprising:

an interpreting step to interpret element Id, attribute, and value parameters of the condition element tag, the element Id parameter indicating an element, the attribute parameter indicating an attribute of the element, and the value parameter indicating a value of the attribute; and

a detecting step to detect whether or not the attribute of the element possesses the value.

58. (New) A computer-readable medium according to Claim 38, wherein the event element tag indicates a user event.

59. (New) A computer-readable medium according to Claim 38, wherein the event element tag indicates a system event.

60. (New) A computer-readable medium according to Claim 38, the action element tag indicating a time delay to wait, after detection of the event, before assigning the value to the attribute of the media object.

61. (New) A computer-readable medium according to Claim 38, the action element tag indicating a position in a sequence of actions at which the value is to be assigned to the attribute of the media object.

62. (New) A computer-readable medium storing computer executable process steps to process an element tag in an extensible markup language, which comprises elements, used in developing and executing a multimedia presentation by a computer, the process steps comprising:

an interpreting step to interpret an element tag comprising a test-element attribute for indicating a particular media object element, a test-attribute attribute for indicating an attribute of the particular element, and a test-value attribute for indicating a test value to compare with a value of the indicated attribute;

a comparing step to compare the test value with a value of the specified attribute; and

an executing step to execute a set of child elements based on the outcome of the comparing step.

63. (New) A computer-readable medium according to Claim 62, the process steps further comprising:

an interpreting step to interpret a parallel element tag indicating that the child elements are to be executed in parallel.

64. (New) A computer-readable medium according to Claim 63, the executing step further comprising executing the child elements in parallel in a case that the value of the indicated attribute of the particular element is equal to the test value.

65. (New) A computer-readable medium according to Claim 62, the process steps further comprising:

an interpreting step to interpret a sequential element tag indicating that the child elements are to be executed sequentially.

66. (New) A computer-readable medium according to Claim 65, the executing step further comprising executing the child elements in parallel in a case that the value of the indicated attribute of the particular element is equal to the test value.